

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ERAN MACOVER

Appeal 2007-0888
Application 10/083,588
Technology Center 1700

Decided: March 23, 2007

Before CHARLES F. WARREN, JEFFREY T. SMITH, and
LINDA M. GAUDETTE, *Administrative Patent Judges*.
SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

Statement of the Case

This is an appeal under 35 U.S.C. § 134 from a final rejection of claims 3 and 4. We have jurisdiction under 35 U.S.C. § 6 (2006).

We AFFIRM.

Appellant invented a wire bonding capillary for pressing a metal wire against an electrode pad (Specification 1). This claimed wire bonding capillary is defined by independent claim 3 as follows:

3. A method for preparing a wire bonding capillary comprising the steps of:

- (a) providing a wire bonding capillary for pressing a metal wire against an electrode pad comprising a capillary tip having a pressing face; and
- (b) coating all of said pressing face of said capillary tip with a layer of polymeric material, said polymeric material including at least one thermoplastic polymer.

The prior art set forth below is relied upon by the Examiner as evidence of obviousness:

| | | |
|---------|--------------|---------------|
| Gilding | US 4,049,506 | Sep. 20, 1977 |
| Evans | US 4,950,365 | Aug. 21, 1990 |

Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gilding in view of Evans.

The Examiner finds that claim 3 distinguishes from the method for preparing a wire bonding capillary of Gilding in that the protective coating on the titanium carbide layer is a silicone material and not a thermoplastic polymer (Answer 4). The Examiner finds that Evans describes the use of thermoplastic polymers comprising poly-p-xylene as coatings over hard metal layers such as titanium carbide for corrosion resistance (Answer 4). The Examiner concludes that it would have been obvious for one of ordinary

skill in this art to utilize the thermoplastic polymers comprising poly-p-xylylene as a protective layer in the wire bonding capillary of Gilding (Answer 4).

The Appellant argues that the Examiner's conclusion of obviousness is incorrect as the present invention is not utilizing parylene coatings for wear resistance and corrosion resistance properties described by Evans, and therefore, is not solving the same problem as the presently claimed invention (Br. 8). Appellant further argues that since the parylene composition is worn away from the surface and results in a residual parylene composition that inhibits corrosion, the resulting invention would not achieve the object of the present invention to inhibit the buildup of contaminant deposits on the surface of the wire bonding capillary (Br. 9).

Issue

Would one with ordinary skill in this art have reasonably expected success in combining the teachings of Gilding and Evans in the manner proposed by the Examiner?

Findings of Fact

Appellant invented a method of preparing a wire bonding capillary for pressing a metal wire against an electrode pad (Specification 1). The wire bonding capillary has at least a part of the pressing face of the capillary tip coated with a layer of polymeric material, said polymeric material includes at least one thermoplastic polymer such as parylene (Specification 6: 23-25).

Gilding describes coatings for microstructural capillary type bonding tools (col. 2, ll. 57-59). Gilding further describes the application of a

silicone rust-protective coating to bonding tools formed of a material subject to rusting such as titanium carbide and tool steel (col. 8, ll. 35-46).

Evans describes a method for the coating substrates of tools that receive some physical wear during use so that the substrate is wear-resistant, decorative, and corrosion free even after substantial use (col. 3, ll. 59-64). Evans discloses the corrosion resistance protective thermoplastic polymer coating comprising parylene, a generic term for unsubstituted and substituted poly-p-xylenes, for hard metal layers such as titanium carbide (col. 2, ll. 30-36; col. 3, l. 66 to col. 4, l. 10; col 5, ll. 44-54).

Principles of Law

Obviousness under 35 U.S.C. § 103 does not require absolute predictability of success. *In re O'Farrell*, 853 F.2d 894, 903-04, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988). For obviousness under § 103, all that is required is a reasonable expectation of success. *Id.*

The motivation to combine or modify the references does not have to be identical to that of Appellant to establish obviousness. *In re Kemps*, 97 F.3d 1427, 1430, 40 USPQ2d 1309, 1311 (Fed. Cir. 1996).

Analysis

Appellant argues that the Examiner's conclusion of obviousness is incorrect as the present invention is not utilizing parylene coatings for wear resistant and corrosion resistant properties described by Evans, and therefore, is not solving the same problem as the presently claimed invention (Br. 8). The motivation to combine or modify the references does not have to be identical to that of Appellant to establish obviousness. Since parylene

coatings have corrosion resistant properties, a person of ordinary skill in this art who was interested in the corrosion resistance property would have been motivated to use the parylene coating in place of the silicone corrosion resistant composition in the method of coating a bonding capillary described in Gilding.

Appellant further argues that since the parylene composition is worn away from the surface and results in a residual parylene composition that inhibits corrosion, the resulting invention would not achieve the object of the present invention to inhibit the buildup to contaminate deposits on the surface of the wire bonding capillary (Br. 9). Appellant's argument is not persuasive because the cited references provide motivation for applying a parylene composition to the bonding tool of Gilding. The coated bonding tool would have the same properties as argued by Appellant. The motivation to combine or modify the references does not have to be identical to that of Appellant's to establish obviousness.

We are convinced by these circumstances that a reasonable expectation of success exists for the Examiner's proposed combination of the Gilding and Evans teachings. Therefore, the record before us, on balance, establishes an unpersuasively-rebutted prima facie case of obviousness with respect to each of the Examiner's rejection.

Conclusion of Law

Based on the record of this appeal, one with ordinary skill in this art would have had a reasonable expectation that a method for preparing a wire capillary tip having a pressing face, wherein the pressing face of the

Appeal 2007-0888
Application 10/083,588

capillary tip is coated with a layer of polymeric material as disclosed in Gilding could comprise a corrosion resistant protective thermoplastic polymer coating comprising parylene for the hard metal layers such as titanium carbide as described by Evans in the manner proposed by the Examiner.

Order

The decision of the Examiner rejecting claims 3 and 4 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2006).

AFFIRMED

clj

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